

Pollution Prevention -- The Basics for Getting Started

What is Pollution Prevention?

The traditional approach to environmental protection and management has been to control pollution (wastes, air emissions, water discharges) after it had been generated and to minimize its impacts on the environment through proper handling, treatment, and disposal. Pollution prevention, in contrast, represents a new approach to environmental protection, and is directed at preventing the pollution from being generated in the first place. Pollution prevention is synonymous with source reduction, and consists of any activity that reduces or eliminates the use of toxic substances, the generation of hazardous waste, and release of pollutants to the environment. Examples of pollution prevention measures include:

- Good operating practices (waste segregation)
- Improved housekeeping
- Inventory control (minimize expired shelf-life materials)
- Spill and leak prevention (preventative maintenance)
- Material substitutions (non-toxic products for toxic)
- Product redesign
- Product reformulation
- Process modifications
- On-site recycling (solvent recovery systems)
- Off-site recycling

What are the benefits of Pollution Prevention?

There are a multitude of benefits from pollution prevention that have been recognized by the thousands of businesses, institutions, and governmental facilities throughout the United States that are currently involved with pollution prevention. Some of the major benefits of pollution prevention are:

- Improved product quality
- Improved environmental protection
- Reduced waste handling, treatment, and disposal costs
- Reduced long-term liability
- A safer and cleaner workplace
- Improved regulatory compliance
- Reduced raw material and energy costs
- Improved public image

How you can get started

Experience has shown that pollution prevention is most successfully achieved with a formalized and comprehensive pollution prevention program. Although there are numerous aspects of a pollution

prevention program, in general, the three key elements of program are:

- Management support and commitment
- Employee involvement
- Comprehensive pollution prevention planning

Commitment by management to support and direct any pollution prevention activities undertaken is perhaps the most crucial requirement for successful pollution prevention, as management establishes priorities and allocates the resources for any organization. Employee involvement is also very important, and can be easily achieved if the management supports the pollution prevention effort.

Comprehensive pollution prevention planning is the heart of a pollution prevention program, and can be successfully carried out with management support and employee involvement. Pollution prevention planning involves conducting a pollution prevention opportunity assessment, which is a systematic and thorough review of facility operations. The basic procedures for conducting an assessment are:

- Establish an assessment team or task force (multi-functional)
- Identify all products or services produced
- Delineate current operations, processes, and practices associated with these products or services
- Evaluate operations, processes, and practices to identify pollution prevention opportunities
- Complete feasibility studies, and select and prioritize opportunities for implementation
- Implement opportunities and monitor progress
- Maintain program

Pollution prevention activities, resulting from a pollution prevention program, are typically documented in a pollution prevention plan. Similar to a business or strategic plan, a pollution prevention plan is a living document that must continuously change to reflect the current conditions in an organization. As pollution prevention projects are implemented, the program is maintained through an ongoing assessment and the plan updated or revised.

The Arizona Department of Environmental Quality's Pollution Prevention Unit

The Pollution Prevention Unit was formed in 1992, and is responsible for planning, coordinating, and overseeing various pollution prevention activities throughout the state as required under the Arizona Revised Statutes.